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METHOD FOR PRODUCTION OF STAMPED SHEET METAL PANELS

ABSTRACT OF THE DISCLOSURE

Sheet metal parts having significantly strained portions, such as aluminum alloy body panels, can be formed by a sequence of steps comprising preform shape stamping, preform annealing and final shape stamping. The shape of the desired part is analyzed to identify portions of the geometry that cannot be formed in a single stamping step without exceeding the straining limit of the metal. A preform shape is determined in which a substantial amount of strain is stamped without tearing and the preform is annealed to re-soften the strained areas and a final stamping step completes development of the final part shape.